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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/643,945

08/20/2003

Kazuhiko Nakazato

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5404

21369

7590

09/22/2005

POSZ LAW GROUP, PLC
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EXAMINER

SUHOL, DMITRY

ART UNIT

PAPER NUMBER

3725

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

6

Office Action Summary	Application No.	Applicant(s)	
	10/643,945	NAKAZATO, KAZUHIKO	
	Examiner	Art Unit	
	Dmitry Suhol	3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-2, there is no antecedent basis for "said pipe" since there are a variety of pipes being claimed (i.e. inner and outer pipes which comprise the multi-layered pipe).

Regarding claims 4-11, the preamble of the claims should not be different from the claims from which they depend. In other words the preamble should read (for example), "The bending method for a multi-layered pipe according to claim 1, wherein...".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-4, 6, 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aria '686 in view of Katayama (JP 2001-269721) and Flehmig et al (WO 01/83130). Aria discloses a bending apparatus and method containing most of the claimed elements including with respect to claim 1, an inner pipe (11), and outer pipe (12), an inside mandrel (5), a tubular outside mandrel (6), a bending die (1), a clamping die (2), a pressure die (4), a crease-removing die (3), where the pipe is bent by causing the clamping die to revolve around the bending die (figure 2). The distant end of the outside mandrel protruding further toward the distal end of the pipe than an anticipated bending range, is disclosed in applicants own specification in paragraph 0007, which states that the length of the outside mandrel corresponds to the length on the double pipe and therefore encompasses the claim. The limitations of claim 3, are described in col. 4, lines 27-41.

Katayama discloses a device like that of Aria which teaches that the outside mandrel may be constructed from a flexible elastic material which is positioned to protrude toward the distal end of the pipe from a bending start point (figures 1 and 2 and abstract) of the purpose of better maintaining the gap between the inner and outer pipes, while Flehmig also discloses a device like that of Aria which teaches that it is beneficial to provide the tips of mandrels of such devices with at least three slits (S1, figure 1) for the purpose of aiding in bending of the mandrel. Therefore, it would have been obvious to one having ordinary skill in the art, at the time of the claimed invention, to have manufacture the outer mandrel of Aria from an elastic material positioned such that it protrudes toward the distal end of the pipe for the purpose of better maintaining

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the gap between the inner and outer pipes during bending. Additionally, it would have been obvious to incorporate at least three slits for the purpose of aiding the tip portion of the mandrel to bend.

Regarding claim 6, Aria discloses an inner mandrel with a tip which is adjustable with the bending of the pipe to assist in preventing the inner from buckling, while Flehmig teaches that it is known to manufacture such tips from a material with high elasticity (tip 4). Therefore it would have been obvious to manufacture the distal end portion of the inside mandrel of Aria from a highly elastic material since the two (elastic material and the movable design of Aria) are equivalents as they fulfill the same function and the selection of either one would have been within the skill and obvious to one with ordinary skill in the art.

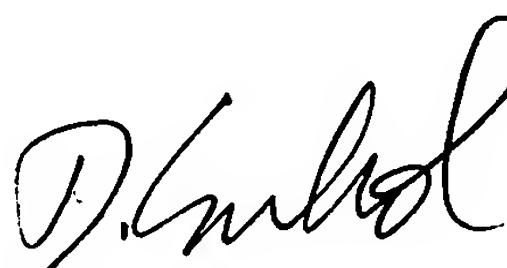
Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aria '686, Katayama (JP 2001-269721) and Flehmig et al (WO 01/83130), as stated above, and further in view of Crotti '839. Aria, as modified by and Flehmig, disclose all of the claimed elements as stated above, but for the specific materials of construction for the inside and outside mandrels as required by claims 5 and 7. However, Crotti teaches that flexible mandrels are known to be manufactured from a polyethylene or nylon material (col. 1, lines 6-8). Therefore it would have been obvious to manufacture the inner and outer mandrels of Aria from either polyethylene or nylon for the purpose of durability and flexibility.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Suhol whose telephone number is 571-272-4430. The examiner can normally be reached on Mon - Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dmitry Suhol
Examiner
Art Unit 3725

ds